UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 1, 2011

Mr. Timothy S. Rausch
Senior Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - AUDIT OF THE LICENSEE'S MANAGEMENT OF REGULATORY COMMITMENTS (TAC NOS. ME7014 AND ME7015)

Dear Mr. Rausch:

On May 27, 2003, the Office of Nuclear Reactor Regulation Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC (Nuclear Regulatory Commission)," was published. LIC-105, which is publicly available electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the Internet at the NRC website (Accession Number ML022750041), provides the NRC staff and its stakeholders with a common reference for handling regulatory commitments made by licensees for commercial nuclear reactors to the NRC staff. The guidance is consistent with the industry guidance prepared by the Nuclear Energy Institute (NEI) 99-04, "Guidance for Managing NRC Commitment Changes." LIC-105 specifies that once every 3 years, the NRC staff will audit a licensee's commitment management program.

On September 26-29, 2011, an audit of the commitment management program for PPL Susquehanna, LLC (PPL, the licensee) was performed onsite and in the NRC office. Based on the audit, the NRC staff finds that,:

(1) While PPL had implemented most of the Regulatory Commitments on a timely basis; in the case of one commitment in the audit sample, item #3, in Table 1, the licensee neither entered the commitment in the system, nor did it track the implementation, and

(2) While PPL's program for managing NRC commitments, including the changes, is generally consistent with NEI 99-04, only the revised version of some regulatory commitments, related to license renewal, were entered in the system. The original commitments were not entered and subsequently revised, as described in its procedure NDAP-QA-0750, Revision 8, "Regulatory Commitment Management."

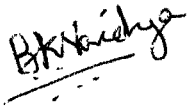
Also, as described in the enclosed audit report, the NRC audit team noted that the implementation of PPL's Commitment Management Program/Procedure varies depending on the user resulting in lack of consistent and uniform implementation. Therefore, the licensee's program document NDAP-QA-0750, needs considerable improvements, because it lacks specificity, clarity, consistency, and uniformity.

During the exit meeting on September 29, 2011, the audit observations were discussed with the licensee. The licensee informed the NRC audit team that it will generate the necessary Action Requests in its Nuclear Information Management System program to revise Procedure NDAP-QA-0750 to address and track these program and procedure weaknesses.

Details of the audit are set forth in the enclosed audit report.

If you have any questions, please contact me at 301-415-3308.

Sincerely,



Bhalchandra K. Vaidya, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure: As stated

cc w/encl: Distribution via Listserv

UNITED STATES
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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

LICENSEE MANAGEMENT OF REGULATORY COMMITMENTS

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 388

1.0 INTRODUCTION AND BACKGROUND

In Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000, the U.S. Nuclear Regulatory Commission (NRC) informed licensees that the Nuclear Energy Institute (NEI) document 99-04, "Guidelines for Managing NRC Commitment Changes," contains acceptable guidance for controlling regulatory commitments and encouraged licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and, when appropriate, reported to the NRC.

The NRC Office of Nuclear Reactor Regulation (NRR) has instructed its staff to perform an audit of licensees' commitment management programs once every 3 years to determine whether the licensees' programs are consistent with the industry guidance in NEI 99-04, and that the regulatory commitments are being effectively implemented.

NEI-99-04 defines a "regulatory commitment" as an explicit statement to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. NRR guidelines direct the NRR Project Manager to audit the licensee's commitment management program by assessing the adequacy of the licensee's implementation of a sample of regulatory commitments made to the NRC in past licensing actions (amendments, reliefs, exemptions, etc.) and activities (bulletins, generic letters (GLs), etc.). The audit is to be performed every 3 years.

Table 1 lists the commitments audited and summarizes what the NRC staff observed as the current status of licensee regulatory commitments and the auditor's comments *in italics*, where applicable.

2.0 AUDIT PROCEDURE AND RESULTS

An audit of the Susquehanna Steam Electric Station's, (SSES) commitment management program was performed at SSES and NRC Headquarters during the period of September 26-29, 2011. The audit reviewed regulatory commitments made since the previous audit on September 22-24, 2008. The audit consisted of three major parts: (1) review of the licensee's program and procedures for Management of Regulatory Commitments, (2) verification of the

licensee's implementation of NRC regulatory commitments that have been completed and (3) verification of the licensee's program for managing changes to NRC regulatory commitments.

The licensee does not have a dedicated system for managing regulatory commitments. The licensee utilizes its existing system called NIMS, Nuclear Information Management System. The licensee's regulatory commitments are entered into NIMS either as Action Requests (ARs) or Management ARs (MRAs). The licensee's NIMS is capable of producing a report on each AR or MRA. Each report is identified by an AR or MRA number as the case may be. Sometimes there is an overall package number in addition to individual task numbers for each component of the commitment. In support of the audit, the NRC staff reviewed the SSES's procedure related to commitment management, NDAP-QA-0750, Revision 8, "Regulatory Commitment Management." Procedure NDAP-QA-0750, was compared to the guidance in NEI 99-04 and the NRR Office Instruction, LIC-105. In general, the licensee's procedure follows the guidance closely: it sets forth the need for identifying, tracking, and reporting regulatory commitments, and it provides a mechanism for changing regulatory commitments. The NRC staff found that the licensee's procedure is generally consistent with the NEI guidance, NEI 99-04 for commitment management.

However, the NRC audit team noted that the implementation of the PPL's Commitment Management Program/Procedure varies depending on the user resulting in lack of consistent and uniform implementation. Therefore, the licensee's program document NDAP-QA-0750, Revision 8, needs considerable improvements, because it lacks specificity, clarity, consistency, and uniformity:

(1) As to how to identify a commitment as a "Regulatory Commitment." All commitments identified as "NRA [Nuclear Regulatory Affairs] Commitments" cannot be "Regulatory Commitments, unless they were part of a submission to the NRC (via a PLA Letter).

(2) The licensee's Commitment Management System does not consistently identify the source of each commitment (PLA Letter) in NIMS. The procedure NDAP-QA-0750, Revision 8, requires that the source document be attached and that each commitment be entered by an NRA engineer. Therefore, procedure adherence with respect to the identification of the source document, entry only by NRA Engineer, and verbatim listing of the commitment, is inconsistent. Also, it is not clear how a commitment is entered and tracked with respect to "One-Time" versus "Continuous" implementation. Also, the procedure does not specify how to document the completion of the regulatory commitment. Specifically, the procedure does not address how to document the date that the commitment was completed or provide instructions as to which documentations pertaining to the completion, such as updated procedure pages, should be attached to the Action Request (AR) tracking the regulatory commitment.

(3) It is not clear how changes to the commitment are documented in the Commitment Management System. The procedure NDAP-QA-0750, Revision 8, requires a Regulatory Commitment Change Evaluation Form called "RCF" in NDAP-QA-0750, be completed for each commitment change. It does not specify how this form is to be tracked in NIMS. It also does not specify how to track revisions or how to document the decision that a revision to a Regulatory Commitment does not constitute a change and does not need a RCF. Additionally, the procedure does not specify how to include updated Regulatory Commitment source documents or how to show the history of such updates.

The last audit conducted in September 2008 covered Revision 7 of NDAP-QA-0750 and made several recommendations e.g., items (a), (b), and (c) in Section 3.0 of the Audit Report dated October 21, 2008 (ADAMS Accession No. ML082820255). However, it appears that Revision 8 of NDAP-QA-0750 did not adopt any of the recommendations. Therefore, the following 2 recommendations from the last audit report dated October 21, 2008, are restated here, because they are still valid:

(a) Even though completion of the work related to the commitment was signed off on the work flow on the MRA data sheets by the supervisor/manager of the group, the commitment should be "closed" by the staff from NRA.

(b) Similar to the process flow chart for changing the regulatory commitments, the process flow diagram for entering (documenting), implementing (completing), and closing the commitment should be included in the procedure, NDAP-QA-0750.

The remainder of the audit evaluated the effectiveness of the procedures by exploring the products produced by the procedures.

2.1 Verification of Licensee's Implementation of NRC Regulatory Commitments

The primary focus of this part of the audit is to confirm that the licensee has implemented the regulatory commitments made to the NRC as part of past licensing actions/activities. For regulatory commitments that were in progress, the NRC staff aimed to ascertain that they have been captured in an effective program for future completion.

2.1.1 Audit Scope

Before the audit, the NRC staff used TRIM to generate a licensing action report for each of the Susquehanna Units starting at the date of the last commitment audit, September 22-24, 2008. The licensing action documents were searched for commitments that fit the LIC-105 definition. Several license amendments, a relief request, and GL resolution letters were selected for review, as listed in Table 1.

LIC-105 limits the audit of regulatory commitments to those made in writing to the NRC as a result of past licensing actions (amendments, exemptions, etc.) or licensing activities (bulletins, GLs, etc.). Accordingly, the audit excluded the following types of commitments:

1. Commitments made on the licensee's own initiative among internal organizational components.

2. Commitments that pertain to milestones of licensing actions/activities (e.g., respond to an NRC request for additional information (RAI) by a certain date). Fulfillment of these commitments was indicated by the fact that the subject licensing action/activity was completed. Several commitments related to RAIs were reviewed to provide a larger sample and better compare the licensee's documents to their procedures.

3. Commitments made as an internal reminder to take actions to comply with existing regulatory requirements such as regulations, Technical Specifications (TSs), and Updated

Final Safety Analysis Reports. Fulfillment of these commitments was indicated by the licensee having taken timely action in accordance with the subject requirements.

4. The steps to implement the License Conditions imposed as the result of the NRC approval of the Amendment for Extended Power Uprate for Unit 1 and Unit 2 (TAC Nos. MD3309 and MD3310). The licensee incorrectly termed these steps as "Regulatory Commitments."

Table 1 contains the list of the SSES regulatory commitments selected for the audit, including those related to License Renewal.

2.1.2 Audit Results

The NRC staff reviewed reports generated by the licensee's commitment tracking program, NIMS, to evaluate the status of the regulatory commitments listed in Table 1. The licensee's regulatory commitments are entered into NIMS either as ARs or Management ARs (MRAs). The licensee's NIMS is capable of producing a report on each AR or MRA. Each report is identified by an AR or MRA number as the case may be. Sometimes there is an overall package number in addition to individual task numbers for each component of the commitment. The NRC staff reviewed the AR and MRA reports, when available, for each of the regulatory commitments listed in Table 1 to evaluate the status of completion of the commitment and/or various components of each commitment, as the case may be. In general, each commitment comprises multiple components, such as revising appropriate plant procedures, revising appropriate sections of the UFSAR, revising training manuals, and training personnel. The NRC staff reviewed the information associated with each commitment to determine the status of completion. While the NRC staff found that the licensee's NIMS captured most of the regulatory commitments that were identified by the NRC staff before the audit, in the case of item #3 in Table 1, it took the licensee more than 2 days of search to discover that the commitment was not entered in NIMS and has not been tracked for implementation and completion. The regulatory commitment in item #3, Table 1 dealt with revising and implementing the TS section. The licensee provided 2 ARs, AR# 1010954 and AR# 1067682, to the auditors as the evidence of entering and completing the implementation of the commitment in NIMS, the ARs neither match the commitment made in the licensee's letter to the NRC, nor did the work flow of activities in the ARs indicate that the commitment was implemented "concurrently with the implementation of 10 CFR, Part 26, Subpart I requirements," as stated in the commitment. The AR# 1010954 dealt with evaluating the impact of the regulations in 10 CFR, Part 26, Subpart I and AR# 1067682 dealt with submitting the amendment request to the NRC. Neither of them is about revising the TS "concurrently with implementation of 10 CFR, Part 26, Subpart I requirements."

The NRC staff also reviewed other sources of information, in particular NRC correspondence relating to licensee submittals, to verify implementation of regulatory commitments. The review results are shown in the last column in Table 1, *in italics*, where appropriate.

Table 1 lists the commitments audited and summarizes what the NRC staff observed as the current status of licensee regulatory commitments and the auditor's comments *in italics*, where applicable. The NRC staff found no basis to dispute the implementation status of these regulatory commitments.

2.2 Verification of the Licensee's Program for Managing NRC Commitments, including Commitment Changes

The primary focus of this part of the audit is to verify that the licensee has established administrative controls for modifying or deleting regulatory commitments made to the NRC. The NRC staff compared the licensee's process for controlling regulatory commitments to the guidelines in NEI-99-04, which the NRC has found to be an acceptable guide for licensees to follow for managing and changing regulatory commitments. The process used at SSES is contained in NDAP-QA-0750, Revision 8. The audit included the review of commitment changes, which included changes that were reported to the NRC or will be reported to the NRC. The audit also verifies that the licensee's commitment management system includes a mechanism to ensure traceability of regulatory commitments following initial implementation. This ensures that licensee personnel are able to recognize that future proposed changes to the affected design features or operating practices require evaluation in accordance with the commitment change control process.

2.2.1 Audit Results

Regarding changes to regulatory commitments, Section 6.3 of NDAP-QA-0750 Revision 8, specifically refers to the guidance of NEI-99-04. Attachments A, B, and C of NDAP-QA-0750, Revision 8, provide details of the RCF process. Before changing a commitment, the licensee answers various questions related to the commitment's importance to continued safety. Regulatory commitments meeting the procedure requirements can be changed with or without notifying the NRC, depending on the circumstances. The NRC staff found that many regulatory commitments in the audit sample were revised/changed, however, the licensee could not provide evidence that the original commitment was entered in its commitment management system (NIMS) and subsequently revised/changed in accordance with required licensee procedures. The revised commitments were entered without traceability to the original commitment. Additionally, the observations mentioned in Section 2.0 apply to the entry of the revised commitments.

The effectiveness of a procedure can be indicated by the products that are produced by the procedure. As set forth in Section 2.1 above, the NRC staff found that the licensee had properly addressed most of the regulatory commitments selected for this audit, except for (1) the item #3, Table 1, as discussed in Section 2.1.2 above, and (2) only the revised version of some regulatory commitments, related to license renewal, were entered in the system. The original commitment were not entered and subsequently revised, as described in Procedure NDAP-QA-0750. As a result of review of the licensee's NIMS information, as well as information from other sources, the NRC staff found no reason to differ from the licensee's reported status of the audited regulatory commitments.

However, there are weaknesses in the mechanisms to ensure traceability of regulatory commitments following initial implementation. It is not clear how changes to the commitment are documented in the Commitment Management System, NIMS. The procedure NDAP-QA-0750, Revision 8, requires a RCF be completed for each commitment change. It does not specify how this form is to be tracked in NIMS. It also does not specify how to track revisions or how to document the decision that a revision to a Regulatory Commitment does not constitute a "change," according to the definition in the procedure, and does not need a RCF. Additionally,

the procedure does not specify how to include updated Regulatory Commitment source documents or how to show the history of such updates. Some of the sample commitments reviewed during the audit had been revised and were up to date, but none of their Regulatory Commitment packages included a traceable history of the revisions, updates to source documents, or determinations that each revision did not constitute a "change."

3.0 CONCLUSION

The NIMS system, used by the licensee, is very complicated, even for the licensee staff to retrieve desired information. Based on the above audit, the NRC staff finds that:

(1) While PPL had implemented most of the Regulatory Commitments on a timely basis; in the case of one commitment in the audit sample, item #3, in Table 1, the licensee neither entered the commitment in the system, nor did it track the implementation, and

(2) While PPL's program for managing NRC commitments, including the changes, is generally consistent with NEI 99-04, only the revised version of some regulatory commitments, related to license renewal, were entered in the system. The original commitments were not entered and subsequently revised, as described in its procedure NDAP-QA-0750, Revision 8, "Regulatory Commitment Management."

Also, the NRC audit team noted that the implementation of PPL's Commitment Management Program/Procedure varies depending on the user resulting in lack of consistent and uniform implementation. Therefore, the licensee's program document NDAP-QA-0750, needs considerable improvements, because it lacks specificity, clarity, consistency, and uniformity. The NRC staff found that the licensee's procedure NDAP-QA-0750, Revision 8, does not provide clear instructions for the following:

(1) As to how to identify a commitment as a "Regulatory Commitment." All commitments identified as "NRA Commitments" cannot be "Regulatory Commitments," unless they were part of a submission to the NRC (via a PLA Letter). It is recommended that for proper tracking of the regulatory commitments, they should be entered, revised/changed, if needed, and closed by knowledgeable NRA staff.

(2) The licensee's Commitment Management System does not consistently identify the source of each commitment (PLA Letter) in NIMS. The procedure NDAP-QA-0750, Revision 8, requires that the source document be attached and that each commitment be entered by an NRA engineer. Therefore, procedure adherence with respect to the identification of the source document, entry by NRA Engineer, and verbatim listing of the commitment, is inconsistent. Also, it is not clear how a commitment is entered and tracked with respect to "One-Time" versus "Continuous" implementation. Also, the procedure does not specify how to document the completion of the regulatory commitment. Specifically, the procedure does not address the way to document the date that the commitment was completed or provide instruction on what documentation of completion, such as updated procedure pages, should be attached to the AR tracking the regulatory commitment.

(3) It is not clear how changes to the commitment are documented in the Commitment Management System. The procedure NDAP-QA-0750, Revision 8, requires a RCF be

completed for each commitment change. It does not specify how this form is to be tracked in NIMS. It also does not specify how to track revisions or how to document the decision that a revision to a Regulatory Commitment does not constitute a change and does not need a RCF. Additionally, the procedure does not specify how to include updated Regulatory Commitment source documents or how to show the history of such updates.

During the exit meeting on September 29, 2011, the above observations were discussed with the licensee. The licensee informed the NRC audit team that it will generate the necessary ARs in its NIMS program to revise its procedure NDAP-QA-0750 to address and track these program and procedure weaknesses.

The last audit conducted in September 2008 covered Revision 7 of NDAP-QA-0750 and made several recommendations e.g., items (a), (b), and (c) in Section 3.0 of the Audit Report dated October 21, 2008 (ADAMS Accession No. ML082820255). However, it appears that Revision 8 of NDAP-QA-0750 did not adopt any of the recommendations.

The following 2 recommendations are repeated from the last audit report dated October 21, 2008, because they are still valid:

(a) Even though completion of the work related to the commitment was signed off on the work flow on the MRA data sheets by the supervisor/manager of the group, the commitment should be "closed" by the staff from NRA.

(b) Similar to the process flow chart for changing the regulatory commitments, the process flow diagram for entering (documenting), implementing (completing), and closing the commitment should be included in the procedure, NDAP-QA-0750.

4.0 LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT

B. O'Rourke
J. Petrilla
C. T. Coddington (by telephone)

Principal Contributors: B. Vaidya
L. Kern
Date: November 1, 2011

TABLE 1

LIST OF AUDITED COMMITMENTS AND RELATED INFORMATION

(AUGUST 2008 THROUGH SEPTEMBER 2011)

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
1	1077256	PLA-5604	PPL Susquehanna, LLC will incorporate the revised acceptance criterion value of 7.5 percent into the TS Bases for Susquehanna Steam Electric Station Unit 1 and Unit 2 in accordance with the Bases Control Program described in approved Technical TS 5.5.10.	MD9301-9302 ML082040623 CLIIP amendment Request to adopt TSTF-460 TAC Closed: 01-02-2009	CLOSED 01/29/2009 ***See Section 3.0, (1). (2), (a), and (b).***
2	1077253	PLA-6330	PPL Susquehanna, LLC will establish the Technical Specification Bases for TS B 3.1.3 and TS B 3.3.1.2 consistent concurrently with those shown in TSTF-475, Revision 1, "Control Rod implementation of Notch-Testing Frequency and SRM Insert Control Rod Action." except for editorial differences included to provide clarity and as a result of not renumbering the SSES Surveillance Requirements.	MD9303-9304 ML082040624 CLIIP amd. Request to adopt TSTF-460 TAC Closed: 01-02-2009	CLOSED 01/15/2009 ***See Section 3.0, (1). (2), (a), and (b).***

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
3	- - -	PLA-6474	Removal of the plant-specific TS requirements will be performed concurrently with the implementation of the 10 CFR Part 26, Subpart I requirements. Implementation: No later than October 1, 2009.	ME0967-0968 ML090920414 CLIIP Amend. Request to adopt TSTF-511 TAC Closed: 07-13-2009	***See Note 1 below and Section 3.0, (1). (2), (a), and (b).***
4	1137134	PLA-6501	PPL will follow the efforts of the Technical Specification Task Force (TSTF) and NRC to finalize the details and scope of changes needed to resolve the instrument setpoint issue discussed in RIS-2006-17. If the Condensate Storage Tank (CST) Level-Low function is affected by the approved version of TSTF-493 "Clarify Application of Setpoint Methodology for LSSS Functions," then PPL will submit a separate amendment request to implement the approved generic change for the CST Level-Low allowable value.	ME0933-0934 ML091200616 RAI Response Amendment Supplement TAC Closed: 11-09-2009	CLOSED 10/21/2010 ***See Section 3.0, (1). (2), (a), and (b).***
5	1170988, 1033823	PLA-6367	Complete the walkdowns of Unit 2 inaccessible piping sections of GL 2008-01 subject systems. Prior to startup from the Spring 2009 Refueling Outage.	ML081560218 MD7886 GL Response TAC Closed: 05-31-2011	CLOSED 08/16/2009, 05/07/2009 RESPECTIVELY ***See Section 3.0, (1). (2), (a), and (b).***

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
6	1171004, 1033824	PLA-6367	Complete the walkdowns of Unit 1 inaccessible piping sections of GL 2008-01 subject systems. Prior to startup from the Spring 2010 Refueling Outage.	ML081560218 MD7886 GL Response TAC Closed: 05-31-2011	CLOSED 07/15/2010, 04/07/2010 RESPECTIVELY ***See Section 3.0, (1). (2), (a), and (b).***
7	1250678 MRA1252383	PLA-6580	Achieve Compliance with 10CFR73.55(i)(1) and 73.55(i)(3)(vii) Implementation: October 29, 2010	ME2839-ME2840 TAC Closed: 03/29/2010	CLOSED 05/03/2011 ***See Section 3.0, (1). (2), (a), and (b).***
8	1250678 MRA1252383	PLA-6580	Achieve Compliance with 10CFR73.55(e)(7)(i)(B) Implementation: October 29, 2010	ME2839-ME2840 TAC Closed: 03/29/2010	CLOSED 05/03/2011 ***See Section 3.0, (1). (2), (a), and (b).***

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
9	1250678 MRA1252384	PLA-6580	Achieve Compliance with 10CFR73.55(i)(2) Implementation: July 31, 2011	ME2839-ME2840 TAC Closed: 03/29/2010	CLOSED 05/03/2011 ***See Section 3.0, (1). (2), (a), and (b).***
10	819357	-----	Commitment No. 10, License Renewal – The new program for SSES will be consistent with the program described in NUREG-1801 Section XI.M13, Thermal Aging and Neutron Embrittlement of Cast Austenitic Stainless Steel (CASS) Program. The SSES program will identify susceptible components, evaluate those components to determine their susceptibility to loss of fracture toughness, and examine those components that are evaluated to be susceptible. Implementation prior to Period of Extended operation	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05/01/2020 ***See Section 3.0, (1). (2), (a), and (b).***
11	819374	-----	Commitment No. 12, License Renewal – Existing program is credited with the following enhancement: Include specific precautions against the use of sulfur (sulfide) containing compounds as a lubricant for bolted connections. Implementation prior to Period of Extended operation	SER NUREG-1931, ML093170792 MD3319-20	DISPO 08/01/2014 ***See Section 3.0, (1). (2), (a), and (b).***

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
12	819402	-----	Commitment No. 13, License Renewal – Existing program is credited with the following enhancements: • Include the Standby Gas Treatment System loop seals within the scope of the program. • Incorporate performance, documentation and trending of opportunistic visual inspections (during normal maintenance/repair activities) in addition to existing Piping Corrosion Program inspections. Implementation prior to Period of Extended operation	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05/01/2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***
13	819424	-----	Commitment No. 16, License Renewal – Program is new. The scope of the Buried Piping Surveillance Program includes only the portions of the buried piping in the Residual Heat Removal Service Water (RHRSW) and Emergency Service Water (ESW) common return header known to have damaged coatings. The program is credited for managing loss of material due to crevice, general, and pitting corrosion and microbiologically influenced corrosion (MIC) for buried steel piping components with damaged coatings. Implementation prior to Period of Extended operation	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05/01/2020 ***See Section 3.0, (1). (2), (a), and (b).***

Item No.	Licensee's Commitment Tracking Number (AR#) (AR is like a package number and MRA is like a subtask)	Licensee's Source of Submittal	Summary of Commitment	NRC TAC No. and NRC Document	Licensee Implementation Status and NRC staff Comments, if any (in *italics*)
14	819429	-----	Commitment No. 17, License Renewal – Program is a new one-time inspection. The scope of the Condensate and Refueling Water Storage Tanks Inspection includes the base (bottom surface and foundation pad interface) of the Condensate Storage Tanks (CSTs) and Refueling Water Storage Tank (RWST) that are in the scope of license renewal and included in the Condensate Storage and Transfer and the Refueling Water Storage and Transfer systems. An appropriate combination of volumetric (including thickness measurement) and visual examinations will be conducted, for a unit's CST (or RWST), to detect evidence of a loss of material due to crevice, general, or pitting corrosion or to confirm a lack thereof. Results will be applied to the other unit's tank(s) based on engineering evaluation. Implementation Within the 10-year period prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 07/01/2014 ***See Section 3.0, (1). (2), (a), and (b).***
15	819466	-----	Commitment No. 23, License Renewal – Program is a new one-time inspection. The scope of the Monitoring and Collection System Inspection includes the internal surfaces of subject carbon steel (and low alloy steel) and cast iron piping and valve bodies that are exposed to	SER NUREG-1931, ML093170792 MD3319-20	DISPO 07/01/2014 ***See Section 3.0, (1). (2), (a), and (b).***

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			potentially radioactive drainage water (untreated water) and potentially other contaminants/fluids during normal plant operations. A representative sample of components in the system, to be defined in the implementing documents, and to include containment isolation piping and/or valve bodies, will be examined for evidence of a loss of material (due to crevice, general, or pitting corrosion or to MIC), or to confirm a lack thereof, and the results applied to the rest of the system based on engineering evaluation. Implementation Within the 10-year period prior to the period of extended operation.		
16	819473	-----	Commitment No. 24, License Renewal – Program is a new one-time inspection. The Supplemental Piping/Tank Inspection is credited for managing loss of material due to crevice and pitting corrosion on carbon steel surfaces at air-water interfaces. The inspection is also credited for managing loss of material due to microbiologically influenced corrosion (MIC) at the air-water interface with the mist eliminator loop seal, which is filled with raw water from the Service Water System, and galvanic corrosion at points of contact between the mist eliminator housing and the SGTS filter enclosure, where condensation and water pooling may occur. Additionally, the Supplemental Piping/Tank Inspection detects and characterizes whether, and to what extent, a loss of material due to crevice and	SER NUREG-1931, ML093170792 MD3319-20	DISPO 07/01/2014 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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			pitting corrosion is occurring (or is likely to occur) for stainless steel surfaces at air-water interfaces. The Supplemental Piping/Tank Inspection also detects and characterizes loss of material due to crevice, galvanic, general, and pitting corrosion on internal carbon steel surfaces within the scram discharge volume (piping and valve bodies) of the Control Rod Drive Hydraulic System, within the air space of the condensate storage tanks and within the Diesel Generator starting air receiver tanks and E diesel compressor skid air receiver tanks to determine whether, and to what extent, degradation is occurring (or is likely to occur). In addition, the Supplemental Piping/Tank Inspection is credited to detect and characterize loss of material due to general, crevice, and pitting corrosion on the internal surfaces of carbon steel and cast iron diesel exhaust piping, piping components, and turbocharger casings. The inspection is also credited to detect and characterize cracking and loss of material due to crevice and pitting corrosion on the internal surfaces of stainless steel diesel exhaust piping components. Implementation Within the 10-year period prior to the period of extended operation.		
17	819477	-----	Commitment No. 27, License Renewal – Program is a new one-time inspection. The SSES program will include measures to verify that cracking is not occurring in Class 1 small-bore piping, thereby validating the effectiveness of the Chemistry Program to mitigate cracking and	SER NUREG-1931, ML093170792 MD3319-20	DISPO 07/01/2014 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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			confirming that no additional aging management programs are needed for the period of extended operation. Implementation Within the 10-year period prior to the period of extended operation.		
18	819478	-----	Commitment No. 28, License Renewal – Existing program is credited with the following enhancements: • The governing procedure for the System Walkdown Program must be revised to add the listing of systems crediting the program for license renewal and to explicitly include inspection of other metals, copper alloy and stainless steel. o It may be determined by engineering evaluation that these components do not require monitoring every two weeks, and the basis for a different walkdown frequency must be documented on the appropriate procedure form. • The governing procedure for the System Walkdown Program must be enhanced to address the license renewal requirement for opportunistic inspections of normally inaccessible components (e.g., those that are insulated), and those that are accessible only during refueling outages. For underground vaults/pits/manholes, an initial sample of at least one vault/pit/manhole from each grouping of components with identical material and environment combinations will be	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05/01/2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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			inspected prior to entering the period of extended operation. A representative sample of the entire population will be inspected within the first 6 years of the period of extended operation. Results of the inspection activities that require further engineering evaluation/resolution (e.g., sample expansion and inspection frequency changes if degradation is detected), if any, will be evaluated using the SSES corrective action process. • The governing procedure for the System Walkdown Program will be enhanced to include a visual and ultrasonic inspection of the external surfaces of piping passing into structures through penetrations (underground piping) for those penetrations with a history of leakage. These inspections will be focused on penetrations that are leaking at that time and will include a representative population of each material, environment combination from those piping systems within the scope of license renewal (which includes those for the RHRSW, ESW, and Fire Protection systems) that enter structures below grade. • A routine activity to supplement the existing plant program will be generated, and based at least in part on EPRI 1007933, "Aging Assessment Field Guide," to inspect elastomers and polymers for cracking and/or change in material properties. o Evidence of surface degradation, such as cracking or discoloration, as well as physical manipulation and/or prodding, will be used as a measure of the material condition.		

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			A representative sample will be determined by engineering evaluation with a focus on components considered to be most susceptible to aging, such as due to their time in service, the severity of conditions during normal plant operations, and any pertinent design margins. Implementation Prior to the period of extended operation.		
19	819663	-----	Commitment No. 36, License Renewal – Program is new. The Non-EQ Electrical Cables and Connections Visual Inspection Program is credited with detecting aging effects from adverse localized environments in non-EQ cables and connections at SSES. The program is applicable to non-EQ cables and connections found in the Reactor Buildings, Circulating Water Pumphouse and Water Treatment Building, Control Structure, Diesel Generator Buildings, Turbine Building, Engineered Safeguards Service Water Pumphouse, and various yard structures (manholes, duct banks, valve vaults, instrument pits, etc.). This program is also applicable to the cables and connections within the scope of license renewal located in the yard areas and control cubicles of the T10 230 kV Switchyard, the 500 kV Switchyard, and the 230 kV Switchyard. Implementation Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05/01/2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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20	819678	-----	Commitment No. 42, License Renewal – Existing program is credited with the following enhancements: • Include a specific step to perform a visual inspection of the RCIC turbine casing. • Add requirements to have inspections performed by qualified personnel using VT-3 or equivalent inspection methods, and to document and trend inspection results. • Establish specific acceptance criteria for inspection results. The program is plant-specific. Implementation Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***
21	819680	-----	Commitment No. 43, License Renewal – Existing program is credited with the following enhancements: • Provisions will be made in the Fatigue Monitoring Program to validate that components which have satisfied ASME Section III, Paragraph N-415.1 requirements (i.e., RPV nozzles N6A, N6B, and N7) continue to satisfy these requirements prior to and during the period of extended operation, thereby allowing fatigue to be continued to be addressed under N-415.1.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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			• The Fatigue Monitoring Program will be enhanced to ensure that the fatigue usage at all monitored locations, including those locations that account for the effect of the reactor water environment, is managed such that an adequate margin against fatigue cracking is maintained. PPL will implement one or more of the following actions, if fatigue usage at a monitored location, including any location that accounts for the effect of the reactor water environment, is projected to reach the design basis limit prior to the end of the period of extended operation: 1. Further refinement of the fatigue analyses to lower the CUFs to less than the allowable; 2. Repair of the affected components; 3. Replacement of the affected components; 4. Management by an inspection program that has been reviewed and approved by the NRC. • The Fatigue Monitoring Program will be enhanced to include the review of Class 1 valve fatigue analyses and other fatigue-related TLAA, such as flued head analyses and high energy line break evaluations, when sufficient fatigue accumulation has occurred, to determine if additional actions are required to address fatigue-related concerns. • The Fatigue Monitoring Program will be enhanced to include		

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			fatigue monitoring of the additional locations required to bound the limiting locations applicable to SSES, as identified in NUREG/CR-6260. • The Fatigue Monitoring Program will be enhanced to establish monitoring criteria to ensure that the fatigue usage at all monitored locations, including those locations that account for the effect of the reactor water environment, is managed such that design basis limits are not exceeded during the period of extended operation. The Fatigue Monitoring Program will define specific fatigue usage values for all monitored locations that, if reached, will require further action. These fatigue usage values shall be conservatively set to values that will allow for not less than 4 years of additional plant operation before the actual fatigue usage at any location would reach the design basis limit. Upon reaching the defined usage at a location, the Fatigue Monitoring Program will require an action request to be generated. The action request will require further engineering evaluation to resolve the issue. Implementation Prior to the period of extended operation.		
22	819774	-----	Commitment No. 52, License Renewal – Perform an Operating Experience (OE) review for the period of operation at EPU conditions and its impact on aging management	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0,***

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			programs for systems, structures and components (SSCs). Implementation: Prior to the period of extended operation.		***(1). (2), (a), and (b).***
23	819776	-----	Commitment No. 53, License Renewal – Incorporate FSAR Supplement into the SSES FSAR as required by 10 CFR 54.21(d). Implementation: Following issuance of the renewed operating licenses.	SER NUREG-1931, ML093170792 MD3319-20	CLOSED 02/10/2010 ***See Section 3.0, (1). (2), (a), and (b).***
24	917987	-----	Commitment No. 55, License Renewal – PPL will either: (1) obtain NRC approval of a SSES plant-specific evaluation consistent with BWRVIP-25 to demonstrate that the core plate rim hold-down bolts will be capable of preventing lateral displacement of the core plate for the period of extended operation (the plant-specific evaluation will be submitted for NRC review no less than 2 years prior to the period of extended operation and will address the inspection strategy for the hold-down bolts); or (2) install core plate wedges to structurally replace lateral load resistance provided by the bolts. Implementation: Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

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25	917990	-----	Commitment No. 56, License Renewal – PPL will address any future conditions, requirements, or limitations imposed by the NRC's safety evaluation for license renewal for BWRVIP-76. Implementation: Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***
26	1053221	-----	Commitment No. 57, License Renewal – Existing program is credited with the following enhancement: • Specify that the inspection of the high pressure turbine shell will consist of a visual inspection (VT-3 or equivalent) of accessible surfaces and an ultrasonic examination of selected locations for wall thickness. The program is plant specific. Implementation: Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

27	1108000	-----	Commitment No. 58, License Renewal – Activities credited in the SSES response to NRC Generic Letter 88-14 will be continued throughout the period of extended operation. Implementation: Ongoing	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2),(3), (a), and (b).***
28	1108001	-----	Commitment No. 59, License Renewal – The Fuse Holders Program is credited with identifying increased connection resistance between the fuse holder metallic clamp and fuse due to fatigue of the metallic clamp. The program provides for periodic inspection of fuse holder clamps within the scope of license renewal that are not in enclosures containing active components and whose fuses are scheduled for removal once every 12 months, or more frequently. Implementation: Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (a), and (b).***

29	1108002	-----	Commitment No. 60, License Renewal – PPL will either (1) implement fatigue monitoring software that satisfactorily addresses all issues raised in Regulatory Information Summary (RIS) 2008-30, "Fatigue Analysis of Nuclear Power Plant Components", or (2) perform a confirmatory ASME Code, Section III fatigue evaluation for the SBF-monitored locations to justify the existing FatiguePro methodology used at SSES Units 1 and 2. Implementation: Prior to the period of extended operation.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***
30	1158434	-----	Commitment No. 61, License Renewal – Spent fuel pool Boral coupon testing will be continued in the period of extended operation with one set of coupons being tested during the tenth or eleventh year after Unit 1 enters the period of extended operation. SSES FSAR section 9.1.2.3.3 Inservice Inspection will be revised to identify the coupon testing schedule during the period of extended operation. SSES FSAR section 9.1.2.3.3.2 Test Coupon Inspection will be revised to require neutron attenuation testing as part of the inspection of test coupons removed from the spent fuel pool. Implementation: Revise the FSAR prior to the period of extended operation, with coupon testing ongoing as indicated.	SER NUREG-1931, ML093170792 MD3319-20	DISPO 05-01-2020 ***See Section 3.0, (1). (2), (3), (a), and (b).***

Note: (1) The licensee could not retrieve the regulatory commitment in item #3, Table 1 that dealt with revising and implementing the technical specification section. The licensee provided 2 ARs, AR# 1010954 and AR# 1067682, to the auditors as the evidence of entering and completing the implementation of the commitment in NIMS, the ARs neither match the commitment made in the licensee's letter to the NRC, nor did the work flow of activities in the ARs indicate that the commitment was implemented "concurrently with the implementation 10 CFR, Part 26, Subpart I requirements," as stated in the commitment. The AR# 1010954 dealt with evaluating the impact of the regulations in 10 CFR, Part 26, Subpart I and AR# 1067682 dealt with submitting the amendment request to the NRC. Neither of them is about revising the TS "concurrently with implementation of 10 CFR, Part 26, Subpart I requirements."

During the exit meeting on September 29, 2011, the audit observations were discussed with the licensee. The licensee informed the NRC audit team that it will generate the necessary Action Requests in its Nuclear Information Management System program to revise Procedure NDAP-QA-0750 to address and track these program and procedure weaknesses.

Details of the audit are set forth in the enclosed audit report.

If you have any questions, please contact me at 301-415-3308.

Sincerely,

/ra/

Bhalchandra K. Vaidya, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure: As stated

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